

IN THE CLAIMS

Please amend the claims to read as follows:

Listing of Claims

1. (Amended) An optical semiconductor device comprising:
a plurality of light-receiving elements ~~comprised of~~
comprising a semiconductor region of a first conductivity type
and a semiconductor region of a second conductivity type formed
on the semiconductor region of the first conductivity type;
an isolation region ~~formed by burying~~ including an insulator
or a dielectric ~~in a trench which passes through,~~ disposed in the
semiconductor region of the second conductivity type and which
reaches contacting the semiconductor region of the first
conductivity type in order to isolate the respective
light-receiving elements ~~from one another;~~
an electrode ~~formed on~~ disposed above the isolation region;
and
a ~~contact portion formed by burying~~ plug comprising a
conductor ~~in an opening which passes~~ which extends through the
isolation region and ~~which reaches~~ contacts the semiconductor
region of the first conductivity type in order to electrically
connect the electrode and the semiconductor region of the first
conductivity type, wherein:

the plug extends into the semiconductor region of the first conductivity type beyond the isolation region.

2. (Amended) The optical semiconductor device of claim 1, wherein the ~~contact portion formed by burying the conductor in the opening~~ plug is located so as to surround each light-receiving element.

3. (Amended) The optical semiconductor device of claim 1, wherein the semiconductor region of the first conductivity type comprises an upper layer, a middle layer, and a lower layer, the ~~middle layer contains a higher concentration of impurity of the first conductivity type than the upper and lower layers do, and the opening in which the conductor is buried~~ the impurity concentration of the middle layer of the first conductivity type is higher than the impurity concentration of the upper layer and the impurity concentration of the lower layer, and the plug is formed so as to reach contacts the middle layer of the semiconductor region of the first conductivity type.

4. (Amended) The optical semiconductor device of claim 1, wherein a high-concentration region, ~~which contains a higher concentration of impurity of the first conductivity type than the~~

~~semiconductor region of the first conductivity type does, of the~~
~~first conductivity type having an impurity concentration higher~~
~~than the impurity concentration of the semiconductor region of~~
~~the first conductivity type is provided directly under the~~
conductor plug.

5. (Amended) The optical semiconductor device of claim 2,
wherein a high-concentration region, ~~which contains a higher~~
~~concentration of impurity of the first conductivity type than the~~
~~semiconductor region of the first conductivity type does, of the~~
~~first conductivity type having an impurity concentration higher~~
~~than the impurity concentration of the semiconductor region of~~
~~the first conductivity type is provided directly under the~~
conductor plug.

6. (Amended) The optical semiconductor device of claim 3,
wherein a high-concentration region, ~~which contains a higher~~
~~concentration of impurity of the first conductivity type than the~~
~~semiconductor region of the first conductivity type does, of the~~
~~first conductivity type having an impurity concentration higher~~
~~than the impurity concentration of the semiconductor region of~~
~~the first conductivity type is provided directly under the~~
conductor plug.

7. (Previously Presented) The optical semiconductor device of claim 1, wherein the conductor is doped polysilicon or tungsten.

8. (Previously Presented) The optical semiconductor device of claim 2, wherein the conductor is doped polysilicon or tungsten.

9. (Previously Presented) The optical semiconductor device of claim 3, wherein the conductor is doped polysilicon or tungsten.

10. (Previously Presented) The optical semiconductor device of claim 4, wherein the conductor is doped polysilicon or tungsten.

11. (Previously Presented) The optical semiconductor device of claim 5, wherein the conductor is doped polysilicon or tungsten.

12. (Previously Presented) The optical semiconductor device of claim 6, wherein the conductor is doped polysilicon or tungsten.

13. (Amended) The optical semiconductor device of claim 1, wherein further comprising a circuit connected to the light-receiving element ~~is included~~ on the semiconductor region of the first conductivity type other than the ~~light-receiving element-formed region~~ in which the light-receiving element is disposed.

14. (Amended) The optical semiconductor device of claim 2, wherein further comprising a circuit connected to the light-receiving element ~~is included~~ on the semiconductor region of the first conductivity type other than the ~~light-receiving element-formed region~~ in which the light-receiving element is disposed.

15. (Amended) The optical semiconductor device of claim 3, , wherein further comprising a circuit connected to the light-receiving element ~~is included~~ on the semiconductor region of the first conductivity type other than the ~~light-receiving element-formed region~~ in which the light-receiving element is disposed.

16. (New) The optical semiconductor device of claim 1, wherein the plug is surrounded by the insulator or dielectric

17. (New) The optical semiconductor device of claim 1,
wherein the plug is not adjacent to the light-receiving element.